American Candle Company

EPA ID Number: NYD000233510

Other (Former) Names of Site

Philips Components Discrete Products, Ferroxcube (a site operator).

Site Description

American Candle is located at 1033 Kings-Highway on 41.5 acres in the Town of Saugerties, Ulster County. The site is bounded by railroad property to the east and the New York State Thruway to the west. Philips Components Discrete Products manufactured electronic components at this facility starting in 1961 and used halogenated solvents for its degreasing operations until 1991. As of January 2000, Philips ceased operations and the property is now owned by a small perfume and candle manufacturer, American Candle.

Site Responsibility and Legal Instrument

The New York State Department of Environmental Conservation (NYSDEC) Superfund program has the responsibility for implementing remedial measures through a Superfund Record of Decision and a Consent Order.

Permit Status

The facility was in existence before the requirement to have Resource Conservation and Recovery Act (RCRA) permits. Currently they are “interim status”, completing Corrective Action without a permit.

Potential Threats and Contaminants

Halogenated solvent compounds, such as 1,1,1-trichloroethane, trichloroethylene, tetrachloroethene, and Freon-113, are present in the groundwater and soil. A former solvent storage shed that was once attached to Building II was identified as the probable source for these compounds. In 1986, high concentrations of these compounds in were found in the groundwater at the upper boundary of the bedrock, but these concentrations have declined dramatically over time.

In 1982, halogenated hydrocarbons above drinking water standards were found in several nearby residential wells. As a result, a site investigation was performed, and on-site and off-site contamination of groundwater and surface soils was delineated by the Ulster County Department of Health. Drinking water in the contaminated residential wells has been monitored monthly since 1982. By 1999, Philips had purchased several

of the contaminated properties, and equipped the rest with activated carbon wellhead filtration systems and bottled potable water.

An EPA preliminary risk assessment, completed in 1989, showed no risk to human health or the environment from chemicals in soil and groundwater at the facility. Any risk from direct contact with contaminated groundwater has been eliminated by the capping and decommissioning of the drinking wells, the compliance with the Occupational Safety and Health Administration safety and monitoring guidelines, and the facility's health and safety plan.

Cleanup Approach and Progress

A remedial investigation/feasibility study (RI/FS) was completed in 1992. The Record of Decision was signed on March 26, 1994. Two separate remedial actions are in progress at the American Candle, former Philips, plant: one in the northern portion of the site and another in the southern portion of the property. Beginning in 1986, water from the two most contaminated monitoring wells on the northern portion of the plant was removed from the ground and stripped of the contamination by a pump-and-treat system.

In 1992, the remedial system was enhanced by the implementation of three technologies: air sparging (AS), soil vapor extraction (SVE), and an expanded groundwater extraction and treatment system. The AS/SVE systems were operated until April 1998, at which time these systems had reached the limit of their technical effectiveness and were shut down. A new strategy was successfully pilot tested and then fully implemented a new strategy in late 2001 to treat residual contamination in the bedrock aquifer, using sodium permanganate to chemically oxidize residual volatile organic compounds (VOCs). This approach is considered to be very successful: the residential wells are currently showing extremely reduced levels of VOCs, even nondetectable in one case. Permanganate treatments have continued and will continue on a quarterly basis.

In June 2001, a pilot had begun at the former Above Ground Storage Area using Hydrogen Releasing Compound (HRC®). This compound promotes anaerobic degradation of chlorinated volatile organic compounds in the subsurface. Monitoring data collected through 2001 and 2002 has shown a decrease in groundwater volatile organic compound concentrations in the study area. Further monitoring is proposed prior to implementation of this technology on a full-scale basis in this area.

In the northern portion of the property, bedrock groundwater continues to contain volatile organic compounds in excess of New York State Department of Environmental Conservation standards and EPA Maximum Contaminant Levels. However, these levels are decreasing as a result of the chemical oxidation (permanganate) treatments. In addition, other control measures (wellhead treatment systems and supplied water) are reliably preventing human exposures.

Site Repository

Copies of supporting technical documents and correspondence cited in this site fact sheet are available for public review at:

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